

AEROTECH E11

CERTIFIED VALUES

Total Impulse: 31.67 newton-seconds
Delays: 3 seconds

Propellant Type: Composite
Propellant Mass: 25.0 grams

Casing Dimensions: 24 mm × 70 mm

Certification Date: 06-Nov - 22
Contest Use Date:

Certification Type: Model Rocket

STATIC TEST DATA

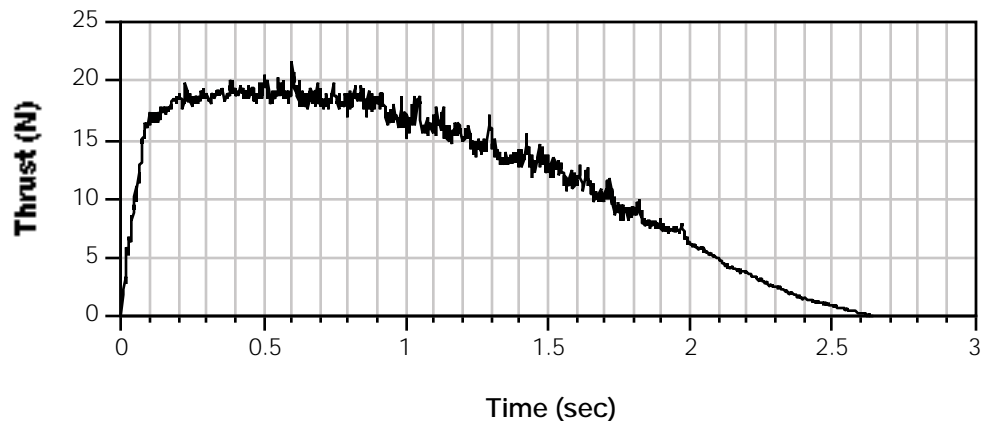
Date Tested: September 30, 2006

Total Impulse: 31.67 newton-seconds (1.38)
Peak Thrust: 21.64 newtons (1.37)
Burn Time: 2.64 seconds (0.28)
Average Thrust: 12.01 newtons

Mass After Firing: 32.8 grams

Delay Time	Average Measured Delay	Initial Mass
3	2.86	61.9 g

TYPICAL THRUST-TIME CURVE



REMARKS

Uses AeroTech RMS 24/40 Reload System and AeroTech E11J Reload Kit. No substitutions allowed.

AEROTECH	E11-3J						
ENGINE	TOTAL	MAX	AVG	BURN	DELAY	INIT	BURNT
TYPE	IMPULSE	THRUST	THRUST	TIME	TIME	WT	WT
E11-3J	28.78	18.14	8.68	3.31	1.85	61.6	33.9
E11-3J	31.76	22.85	11.49	2.76	2.35	61.6	32.5
E11-3J	33.04	22.41	13.61	2.43	3.08	61.7	32.5
E11-3J	29.68	20.92	10.57	2.81	4.24	62.1	33.1
E11-3J	31.91	21.51	12.39	2.58	1.89	62.1	33.2
E11-3J	32.13	21.65	12.72	2.53	2.99	61.8	32.7
E11-3J	32.61	22.70	13.89	2.35	2.61	61.8	32.3
E11-3J	32.70	22.16	13.03	2.51	3.52	62.2	33.0
E11-3J	32.47	22.40	13.19	2.46	3.25	61.9	32.2
AVG	31.67	21.64	12.17	2.64	2.86	61.87	32.82
STD	1.38	1.37	1.57	0.28	0.74		
STD %	4.35	6.33	12.94	10.53	25.69		

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; AERO E11 RASP.ENG file made from NAR published data
; File produced Nov 23, 2006
; This file my be used or given away. All I ask is that this header
; is maintained to give credit to NAR S&T. Thank you, Jack Kane.
; The total impulse, peak thrust, average thrust and burn time are
; the same as the averaged static test data on the NAR web site in
; the certification file. The curve drawn with these data points is as
; close to the certification curve as can be with such a limited
; number of points (32) allowed with wRASP up to v1.6.

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E11	24	70	3	.025	.062	Aero
0.035	7.382					
0.073	15.098					
0.107	16.675					
0.197	17.925					
0.221	19.165					
0.259	18.252					
0.477	18.927					
0.508	19.840					
0.532	18.431					
0.598	18.600					
0.612	21.640					
0.646	18.510					
0.919	18.024					
1.027	16.616					
1.047	18.272					
1.065	16.120					
1.189	15.624					
1.279	14.384					
1.300	17.042					
1.341	13.471					
1.479	13.888					
1.503	12.648					
1.579	11.576					
1.687	10.168					
1.714	11.497					
1.797	9.090					
1.929	7.518					
2.091	5.117					
2.274	2.882					
2.409	1.477					
2.640	0.000					

